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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,309	07/06/2001	Hidehiko Funaoka	010311	6699

23850 7590 07/15/2003

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EXAMINER

CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

14

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-14

Office Action Summary

Application N .

09/806,309

Applicant(s)

FUNAOKA ET AL.

Examiner

Victor S Chang

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13. 6) ☐ Other: _____

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Rejections not maintained are withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-10 and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner suggests to re-write claim 1 in Markush format so as to clarify the claimed elements. For example, following are some suggestions:

In claim 1, line 1; change "comprising" to --said membrane formed from a material which is selected from the group consisting of--.

In claim 1, line 5, please delete "of the polyolefin", as it appears to be unnecessary and confusing.

Response to Amendment

5. Claims 1-2, 7, 9-10, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kono et al. (US 4588633), substantially for the reasons set forth in

section 2 of Paper No.8, and section 8 of Paper No. 6, together with the following additional observations.

With respect to Takita's Declaration attesting that not only is the thermal setting necessary but also it is extremely important to timely conduct the thermal setting (Response, page 2, last paragraph), and the effect to the air permeability by a timely thermal setting is not recognized in each of US '633, US '183 and US 492, and the effect is unexpected (Response, page 3), the Examiner notes that the prior art combination encompasses and renders obvious the instant claimed invention. For example, the Examiner reiterates that the air permeability in Table I of Takita (US 5051183) is in the range of 30-148 sec/100cc, i.e., which has comparable or greater air permeability than the Applicants' membranes illustrated in Table A (see bottom paragraph on page 2, Paper No. 8). Additionally, it should be noted that the product-by-process limitation of "timely thermal setting" is not recited in the rejected claims; further, with respect to a product-by-process claim, Applicants must show that the resultant article is patentably distinct from those taught by the reference.

With respect to Applicants' argument that Examiner has not repeated an inherency argument in the Final Office Action (Response, pages 3-4, bridging paragraph), the Examiner notes that the arguments set forth in the prior Office Action, i.e., Paper No. 6, are clearly repeated in section 2 of Paper No. 8 (specifically, see second paragraph on page 2).

With regard to Exhibit B of the Declaration, which shows that in US '183 the directivity of lamellas to the direction perpendicular to the membrane is lower than 40%,

whereas the directivity of the instant claimed is at least 40%, Applicants' argument appears persuasive. The Examiner repeats (see section 4 of Paper No. 10) that Applicants are strongly urged to further clarify the unexpected directivity of lamellas and its relations to the "timely thermal setting", and also Applicants might further wish to clarify what "direction" constitutes the "mechanical direction" in claim 1.

Lastly, Applicants argue that "the air permeability is substantially independent of the pore diameter" is not persuasive (Response, pages 5-6). The Examiner repeats (see section 5 of Paper No. 10) that it is common knowledge that total air permeability is dependent on both the pore size and the shape of the pores. As such, recitations which clearly limits these parameters (i.e., pore size and shape) are required to determine the overriding parameter in a particular porous structure.

6. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kono et al. (US 4588633) either individually, or in view of Takita et al. (US 5051183), substantially for the reasons set forth in section 2 of Paper No.8, and section 9 of Paper No. 6, together with the additional observations as set forth above.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kono et al. (US 4588633) in view of Takita et al. (US 5922492), substantially for the reasons set forth in section 2 of Paper No.8, and section 10 of Paper No. 6, together with the additional observations as set forth above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 703-605-4296. The examiner can normally be reached on 8:30 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

VSC
July 10, 2003

DANIEL ZIRKER
PRIMARY EXAMINER
GROUP 1800
1700

Daniel Zinker